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# Sixteen new species of *Agrilus* Curtis, 1825 from East Africa (Coleoptera, Buprestidae)

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## Abstract

Sixteen new species of *Agrilus* Curtis, 1825 from East Africa: *A.* (*Agrilus*) *cteniasiformis*, **sp. n.**, *A.* (*Agrilus*) *gueorguievi*, **sp. n.**, *A.* (*Agrilus*) *kinuthiae*, **sp. n.**, *A.* (*Agrilus*) *ljubomirovi*, **sp. n.**, *A.* (*Agrilus*) *njugunai*, **sp. n.**, *A.* (*Agrilus*) *polinae*, **sp. n.**, *A.* (*Duttus*) *delchevi*, **sp. n.**, *A.* (*Paralophotus*) *gordoni*, **sp. n.**, *A.* (*Paralophotus*) *jiloi*, **sp. n.**, *A.* (*Paralophotus*) *pavlinae*, **sp. n.**, *A.* (*Paralophotus*) *penevi*, **sp. n.**, *A.* (*Paralophotus*) *popovi*, **sp. n.**, *A.* (*Paralophotus*) *semerdjievi*, **sp. n.**, *A.* (*Paralophotus*) *tsavoensis*, **sp. n.** from Kenya; *A.* (*Agrilus*) *novaki*, **sp. n.** from Tanzania; *A.* (*Robertius*) *mungaii*, **sp. n.** from Uganda are described, illustrated and compared with related species.

## Keywords

Coleoptera, Buprestidae, Agrilus, Kenya, Tanzania, Uganda, new species

## Introduction

This paper is a second joint contribution on the *Agrilus* fauna of East Africa following Curletti and Sakalian (2007). The majority of the new species were collected in 2005 and 2006 during implementation of a project by "International Center of Insect Physiology and Ecology" (Nairobi, Kenya) titled "Promotion of natural-based, sustain-

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able businesses for forest-adjacent communities in the East-Usambara - Tanga, Taita Hills and Lower Tana River Forests", sponsored by "Critical Ecosystem Partnership Fund"(Washington,USA). The remaining specimens were collected during expeditions by the second author in Kenya from 2004 to 2006, except *Agrilus* (*Agrilus*) *novaki,* sp. n., which was collected by K. Novák in Tanzania and *Agrilus* (*Robertius*) *mungaii,* sp. n. from Uganda, which was found by the authors while studying the collection of the National Museum of Kenya.

## Abbreviations

**NMK** National Museum of Kenya (Nairobi, Kenya)
**GCCI** Collection of Gianfranco Curletti (Carmagnola, Italy)
**IZBAS** Collection of the Institute of Zoology BASc Scientific Found (Sofia, Bulgaria)

### *Agrilus* (*Agrilus*) *cteniasiformis,* sp. n.

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Figs 1, 2

**Type specimens.** Holotype ♂: "C Kenya, Simba (02°08′S – 37°34′E), 1050 m, 31.10.2005, G. Curletti & V. Sakalian leg.". Paratypes: 1 ♂ and 1 ♀ with same locality and date as holotype. The holotype is deposited in IZBAS and the paratypes in GCCI.

**Description of holotype.** Body slender, subparallel, bronze colored dorsally; ventral side metallic black, frons dark green, elytra with very sparse and short white pubescence.

Head with medial sulcus and longitudinal striae on vertex and upper portion of frons; width of vertex between eyes 0.37 mm; frons protruding at upper portion; medial and lower portions of frons dark green, rugose; lower portion of frons, clypeus and genae with short, dense, white pubescence; eyes feebly convex; antennae short, barely reaching upper portion of eyes; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin bisinuate, carinate; anterior pronotal lobe distinct; lateral margins slightly curved before latero-posterior angles; latero-posterior angles rectangular; prehumeral pronotal carinae arched, extending from latero-posterior angles to just before lateral margin at middle of pronotum; marginal and submarginal carinae subparallel, not coalescent; discal sculpture consisting of very distinct transverse striae.

Scutellum small, anterior margin rounded; transverse carina present; apical projection short.

Elytra subparallel, width across humeri almost as wide as pronotal base; elytra widest at posterior third; humeral depressions deep and wide; apices narrowly separately arcuate, serrated; elytra with short, uniform, white pubescence; discal elytral sculpture consisting of transverse wrinkles.

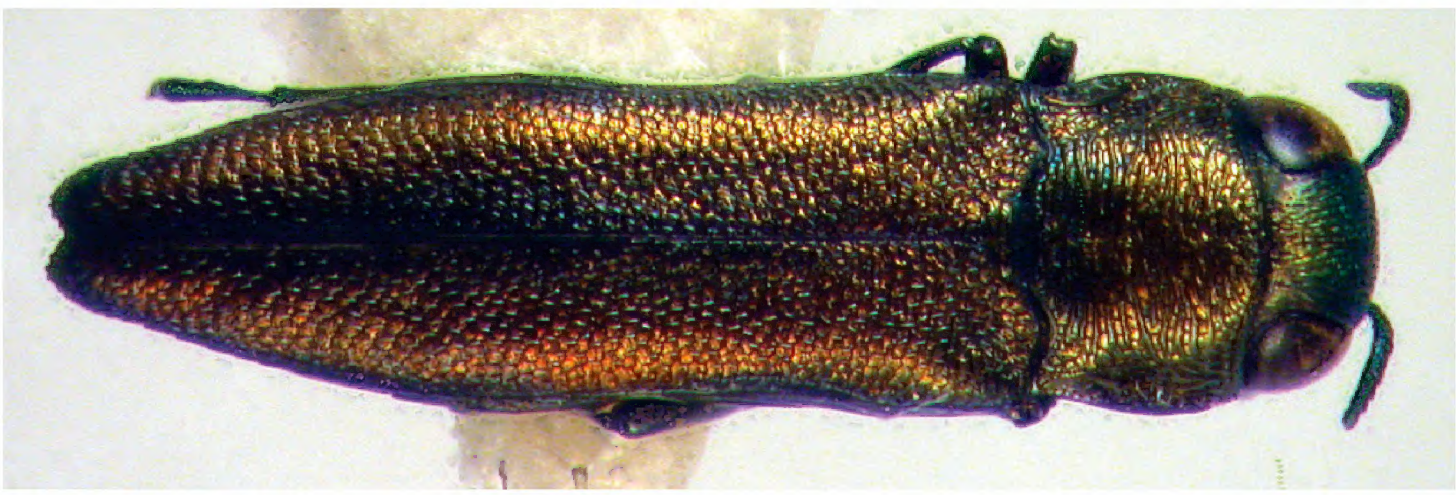

**Figure 1.** *Agrilus* (*Agrilus*) *cteniasiformis,* sp. n. (dorsal view).

**Figure 2.** Aedeagus *Agrilus* (*Agrilus*) *cteniasiformis,* sp. n. (dorsal view). Scale: 1 mm.

Underside. Prosternal lobe robust, regularly arcuate. Prosternal process narrowed between procoxae, apical projection long and acutely pointed. Ventrites with uniform, short, golden pubescence; apex of last ventrite truncate. Aedeagus (Fig. 2).

**Description of paratypes.** Females differ from males in the rounded and bordered apex of the last ventrite and the bronze-colored frons.

**Size.** Length 3.00–3.40 mm (holotype 3.30 mm); width 0.85–0.95 mm (holotype 0.90 mm).

**Differential diagnosis.** The new species is closely related to *Agrilus* (*Agrilus*) *ctenias* Théry, 1934 from Mozambique. It differs from this species by its bronze rather than emerald green color and smaller size.

**Etymology.** The specific epithet denotes the similarity of the new species and *A. ctenias.*

**Remarks.** Collected from yellow sticky traps placed on branches of *Acacia* sp.

### *Agrilus* (*Agrilus*) *gueorguievi,* sp. n.

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Figs 3, 4

**Type specimens.** Holotype ♂: "Kenya, Tsavo West National Park (03°30′S – 38°16′E), 7.11.2005, G. Curletti & V. Sakalian leg.". Paratypes 14 exs: 2 ♂♂ and 4 ♀ ♀ with

same locality and date as holotype; 3 ♂♂ and 5 ♀ ♀: "Kenya, western of Voi City (03°26′S – 38°30′E), 4.11.2005, G. Curletti & V. Sakalian leg.". The holotype is deposited in IZBAS and the paratypes in GCCI, IZBAS and NMK.

**Description of holotype.** Body short, subcylindrical, dark copper with blackish tinge, vertex and frons of male black; elytra with uniform, dense and short white pubescence.

Head with very narrow medial sulcus and very fine longitudinal striae on vertex; vertex and frons black; width of vertex between eyes 0.55 mm; frons convex, protruding in dorsal view; upper portion of frons densely punctuate; lower portions of frons rugose; clypeus separated from frons by sharp carina; clypeus and genae with short, dense, white pubescence; eyes convex, very small; antennae short, barely reaching anterior portion of pronotum; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin straight, carinate; anterior pronotal lobe absent; lateral margins slightly curved before latero-posterior angles; latero-posterior angles slightly obtuse; pronotum with two medial and two lateral shallow depressions; prehumeral pronotal carinae absent; marginal and submarginal carinae subparallel, not coalescent; discal sculpture consisting of transverse striae and sparse punctuation; pubescence on disc very sparse and white.

Scutellum small, anterior margin rounded; transverse carina present; apical projection long and acutely pointed.

Elytral width across humeri slightly wider than pronotal base, widest at posterior third; humeral depressions deep and wide; apices narrowly jointly arcuate, not serrulate; elytra with short, uniform, white pubescence; discal elytral sculpture consisting of transverse wrinkles.

Underside. Prosternal lobe with anterior margin truncate. Prosternal process parallel between procoxae, acuminate apically; prosternal process with dense, white, pubescence. Ventrites with uniform, short, white, sparse pubescence, denser on laterosternites; apex of last ventrite truncate with long apical setae. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together. Aedeagus (Fig. 4).

**Description of paratypes.** Sexual dimorphism occurs in the color of vertex and frons, which is black in males and dark copper in females.

**Size.** Length 2.60–3.60 mm (holotype 3.00 mm); width 0.75–1.15 mm (holotype 0.85 mm).

**Differential diagnosis.** This new species is very similar to *Agrilus* (*Agrilus*) *kinuthiae*, sp. n., from which is differs by the blackish tinged body, black vertex and frons of males and very different shape of the aedeagus (Fig. 4 and Fig. 6).

**Etymology.** The name was chosen to honor the Bulgarian entomologist, the late Dr. Vassil Guéorguiev, for his great body of works on different families of Coleoptera.

**Remarks.** Most of the specimens were collected from yellow sticky traps placed on branches of *Acacia* sp.

**Figure 3.** *Agrilus* (*Agrilus*) *gueorguievi*, sp. n. (dorsal view).

**Figure 4.** Aedeagus of *Agrilus* (*Agrilus*) *gueorguievi*, sp. n. (dorsal view). Scale: 1 mm.

### *Agrilus* (*Agrilus*) *kinuthiae*, sp. n.

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Figs 5, 6

**Type specimens.** Holotype ♂: "NE Kenya, Lower Tana River (02°16′S – 40°10′E), 30 m, 25–28.10.2005, G. Curletti & V. Sakalian leg.". Paratypes 6 exs: 4 ♀ ♀ with same locality and date as holotype; 2 ♀ ♀ "NE Kenya, Lower Tana River (02°13′S – 40°10′E), 10 m, 25–28.10.2005, G. Curletti & V. Sakalian leg.". The holotype is deposited in IZBAS and the paratypes in GCCI, IZBAS and NMK.

**Description of holotype.** Body robust, subcylindrical, bright copper in color with a greenish tinge and the frons green.

Head with dense punctuation on vertex and upper portion of frons; width of vertex between eyes 0.62 mm; frons protruding in upper portion; lower portion of frons, clypeus and genae with short, dense, white pubescence; clypeus separated from frons by sharp carina; eyes convex and large; antennae short, barely reaching anterior margin of pronotum; antennomeres 4–11 markedly wider than long, triangular.

Pronotum widest at anterior third; anterior margin straight, carinate; anterior pronotal lobe absent; lateral margins slightly curved in posterior third; latero-posterior angles subrectangular; pronotum with weak depressions (two medial and two lateral);

posterior medial depression deeper and oval; prehumeral pronotal carinae absent; marginal and submarginal carinae subparallel, not coalescent; discal sculpture consisting of transverse striae and sparse punctuation.

Scutellum robust, anterior portion triangular; transverse carina present; hind projection short and acutely pointed.

Elytra subparallel width humeri almost as wide as pronotal base; widest at posterior third; humeral depressions deep and wide; apices narrowly jointly rounded, not serrulate; elytra with short, uniform, white pubescence; discal elytral sculpture consisting of transverse wrinkles.

Underside. Prosternal lobe robust, anterior margin truncate. Prosternal process parallel between procoxae than narrowed apically; prosternal process with dense, white, pubescence. Abdomen with suture between ventrites 1 and 2 not visible. Ventrites with uniform, short, golden pubescence; apex of last ventrite shallowly arcuately emarginate, with long pubescence. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together. Aedeagus (Fig. 6)

**Description of paratypes.** Sexual dimorphism occurs in the following characters: upper portion of frons, which is green in males and cupper in females, pubescence of

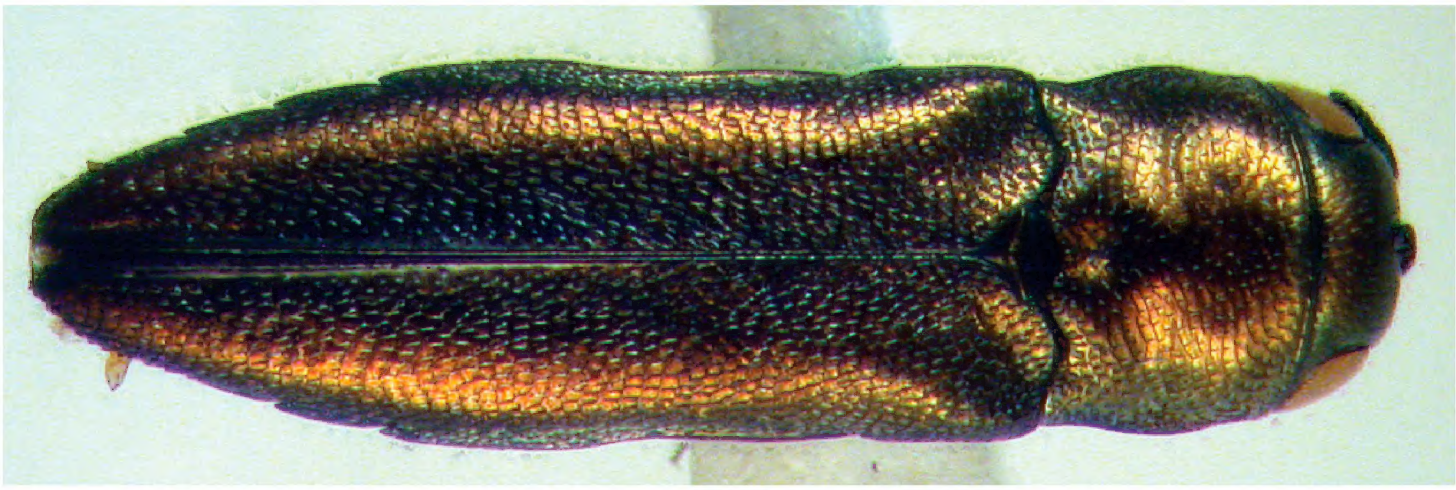

**Figure 5.** *Agrilus* (*Agrilus*) *kinuthiae*, sp. n. (dorsal view).

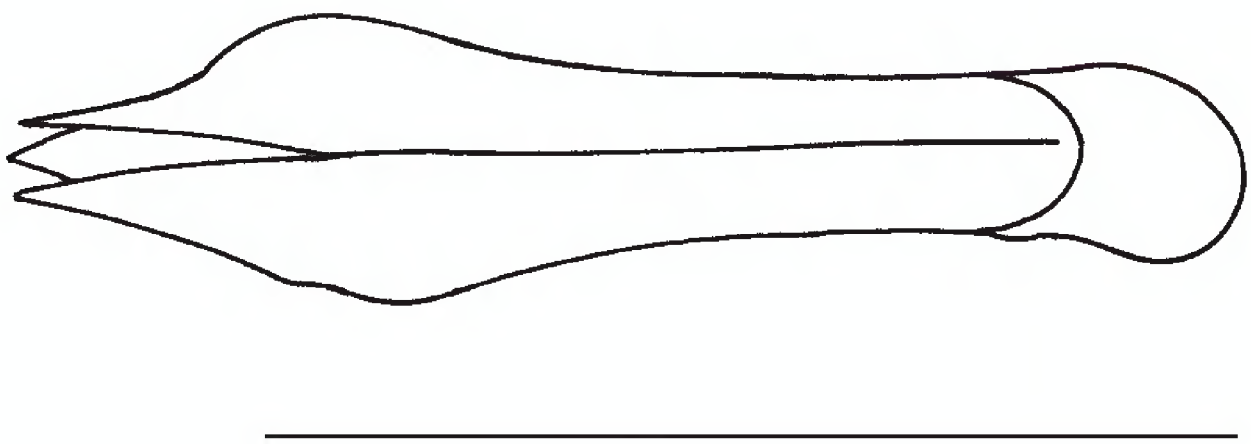

**Figure 6.** Aedeagus of *Agrilus* (*Agrilus*) *kinuthiae*, sp. n. (dorsal view). Scale: 1 mm.

prosternal process, which is longer in males and apex of last ventrite, which is shallowly arcuately emarginate in males, while in females is subtruncate.

**Size.** Length 3.90–4.45 mm (holotype 4.00 mm); width 0.95–1.25 mm (holotype 1.05 mm).

**Differential diagnosis.** *Agrilus* (*Agrilus*) *kinuthiae*, sp. n. is very similar to *A.* (*Agrilus*) *chembae* Théry, 1934, which synonym is *A.* (*Agrilus*) *othello* Obenberger, 1935. *A. chembe* is distributed in Kenya, Mozambique and Tanzania. The new species has frons less prominent in dorsal view and the sculpture of pronotum is less strong. The aedeagus has the paramers more expanded and rounded laterally and more anteriorly advanced.

**Etymology.** Dedicated to Dr. Vanja Kinuthia, from the National Museum of Kenya, for her kindness to give us the possibility to study the Buprestidae collection at the Museum.

**Remark.** Collected from yellow sticky traps placed on branches of *Acacia* sp.

### *Agrilus* (*Agrilus*) *ljubomirovi*, sp. n.

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Figs 7, 8

**Type specimens.** Holotype ♂: "Kenya, N Oltepesi (01°33′S – 36°37′E), 22.11.2005, G. Curletti & V. Sakalian leg.". Paratypes 2 ♂♂: with the same locality and date as holotype. The holotype is deposited in IZBAS and the paratypes in GCCI and IZBAS.

**Description of holotype.** Body robust, subcylindrical, dark copper colored dorsally, underside with blackish tinge. Elytra with blackish lustre and uniform semierect pubescence.

Head with very narrow, indistinct medial sulcus and very fine longitudinal striae on vertex; width of vertex between eyes 0.52 mm; frons protruding at upper portion, hemispheric in dorsal view with sculpture of concentric wrinkles and deep punctation; lower portion of frons, clypeus and genae with short, dense, white pubescence; clypeus separated from frons by sharp carina; eyes convex; antennae short, extending anterior margin of pronotum; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin carinate; anterior pronotal lobe absent; lateral margins slightly curved before latero-posterior angles; latero-posterior angles subrectangular; pronotum with anterior medial and two lateral very shallow depressions; only postero-medial depression deeper, longitudinally long-oval; prehumeral pronotal carinae more visible from lateral view, broadly arched, extending from posterior margin and reaching middle portion of pronotum just before lateral margin; marginal and submarginal carinae not conjoined; discal sculpture consisting of diagonal and transverse striae and sparse punctation; pubescence on disc sparse and white.

Scutellum well developed, anterior portion arched; transverse carina present; hind projection long and acutely pointed.

Elytra width across humeri, slightly wider than pronotal base, widest at posterior third; humeral depressions deep and wide, without pubescence; apices widely separately arcuate, serrated; elytra with uniform, semierect pubescence; discal elytral sculpture consisting of transverse wrinkles.

Underside. Prosternal lobe with anterior margin broadly arcuate. Prosternal process subparallel between procoxae than widened and triangular apically. Abdomen with suture between ventrites 1 and 2 not visible. Ventrites with uniform, short, sparse pubescence, denser on laterosternites; apex of last ventrite truncate, with long erect setae apically. Metatarsus shorter than metatibia; basal metatarsomere very distinctly shorter than following metatarsomeres together. Aedeagus (Fig. 8)

**Description of paratypes.** Paratypes without substantial differences.

**Size.** Length 3.35–3.70 mm (holotype 3.35 mm); width 0.95–1.10 mm (holotype 0.95 mm).

**Differential diagnosis.** The aedeagus of *Agrilus* (*Agrilus*) *ljubomirovi*, sp. n. is similar to that of *A.* (*Agrilus*) *gueorguievi*, sp. n. The main characters that distinguish these two species are as follow: vertex and frons black in *A. gueorguievi*, sp. n., dark copper in

**Figure 7.** *Agrilus* (*Agrilus*) *ljubomirovi*, sp. n. (dorsal view).

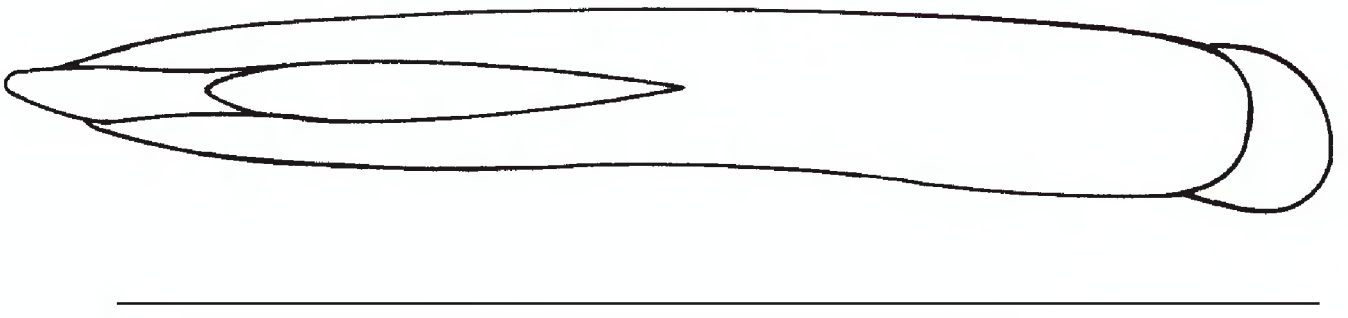

**Figure 8.** Aedeagus of *Agrilus* (*Agrilus*) *ljubomirovi*, sp. n. (dorsal view). Scale: 1 mm.

*A. ljubomirovi,* sp. n.; prehumeral carina present in *A. ljubomirovi*, sp. n. and lacking in *A. gueorguievi,* sp. n.; elytral pubescence sparser and longer in *A. ljubomirovi*, sp. n.; anterior margin of prosternal lobe truncate in *A. gueorguievi*, sp. n. and rounded in *A. ljubomirovi*, sp. n.

**Etymology.** The name is chosen to honor the friend of the second author, Toshko Ljubomirov, specialist on Sphecidae and Crabronidae (Hymenoptera) and a very good collector of buprestid beetles.

**Remark.** Collected from yellow sticky traps placed on branches of *Acacia sp*.

### *Agrilus* (*Agrilus*) *njugunai*, sp. n.

urn:lsid:zoobank.org:act:C5C0902F-C9B9-4273-9993-33557CF25A18

Figs 9, 10

**Type specimens.** Holotype ♂: "NE Kenya, North of Malindi, Sabaki River (03°08′S – 40°07′E), 25–28.10.2005, G. Curletti & V. Sakalian leg.". Paratype ♀: with same locality and date as holotype. The holotype is deposited in IZBAS and the paratype in GCCI.

**Description of holotype.** Body slender, elongate dark copper dorsally and bright copper ventrally, with blackish tinge on vertex and frons. Elytra with uniform golden pubescence.

Head with medial sulcus and dense punctation on vertex and upper portion of frons (more distinct on upper portion of frons); width of vertex between eyes 0.50 mm; frons protruding in medial and upper portions; lower portion of frons, clypeus and genae with short, dense, white pubescence; clypeus separated from frons by transverse carina; eyes convex and large; antennae short, extending anterior margin of pronotum; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin straight, carinate; anterior pronotal lobe absent; lateral margins distinctly curved before latero-posterior angles; latero-posterior angles rectangular; pronotum with two shallow lateral depressions; prehumeral pronotal carinae sharp rib-like, extending from lateroposterior angles to medial portion of pronotum, diverging from lateral margin; marginal and submarginal carinae coalescent at medial portion of pronotum; discal sculpture consisting of diagonal and transverse striae and sparse punctation.

Scutellum relatively small, anterior portion triangular; transverse carina present; apex very short and acutely pointed.

Elytra elongate, subparallel, width across humeri almost as wide as pronotal base; elytra widest at posterior third; humeral depressions deep and without pubescence; apices very narrowly separately arcuate, distinctly serrate; elytra with short, uniform, golden pubescence; discal elytral sculpture consisting of of transverse wrinkles.

Underside. Prosternal lobe robust, arcuate apically. Prosternal process parallel between procoxae, then narrowed and elongate apically; pro -, meso - and metasternum and prosternal process with white, dense pubescence. Suture between ventrites 1 and

2 not visible; ventrites with uniform, short, sparse, white pubescence; laterosternites with very dense, short, white pubescence; apex of last ventrite with distinct medial incision. Metatarsus shorter than metatibia; basal metatarsomere slightly shorter than following metatarsomeres together. Aedeagus (Fig. 10).

**Description of paratype.** Sexual dimorphism occurs in the last ventrite of the female, the apex of which lacks an incision and has a fascicle of long hairs.

**Size.** Length 3.95–4.30 mm (holotype 3.95 mm); width 0.95–1.05 mm (holotype 0.95 mm).

**Differential diagnosis.** *Agrilus* (*Agrilus*) *njugunai*, sp. n. and *A.* (*Agrilus*) *polinae,* sp. n. are similar to *A.* (*Agrilus*) *addagallensis* Obenberger, 1935 from Ethiopia. They differ from that species mainly by the ventrites with uniform pubescence, without white spots on the sides. *Agrilus* (*Agrilus*) *polinae,* sp. n. can be separated from *A.* (*Agrilus*) *njugunai*, sp. n. by the different structure of the pronotum, which is more depressed at the sides; by the marginal and submarginal pronotal carinae not conjoined, the presence of two longitudinal, sutural stripes of pubescence on the elytra and the medially emarginate prosternal lobe of *A. polinae*, sp. n.

**Etymology.** Dedicated to the expedition car driver Mr. Joseph N′juguna for his assistance during the expeditions in different regions of Kenya.

**Remark.** Collected from yellow sticky traps placed on branches of *Acacia* sp.

**Figure 9.** *Agrilus* (*Agrilus*) *njugunai*, sp. n. (dorsal view).

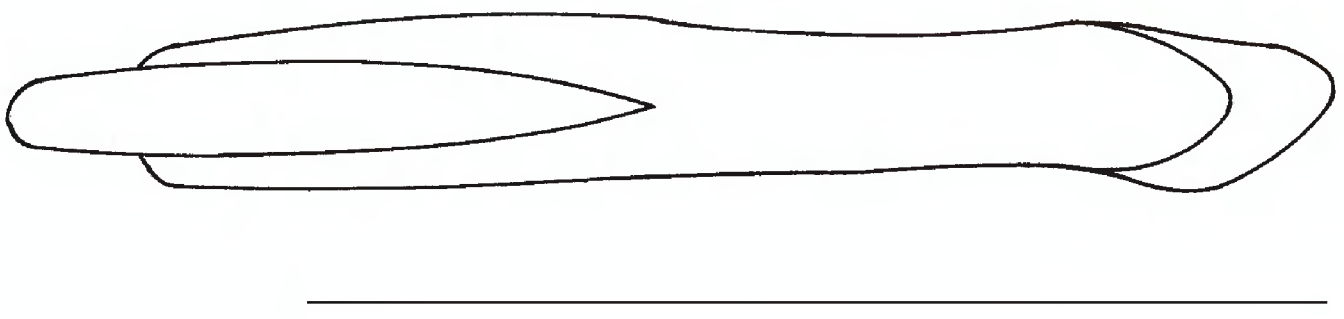

**Figure 10.** Aedeagus of *Agrilus* (*Agrilus*) *njugunai*, sp. n. (dorsal view). Scale: 1 mm.

***Agrilus* (*Agrilus*) *novaki*, sp. n.**
urn:lsid:zoobank.org:act:855DA9F7-7DEE-42F8-A7CA-C373DD147D32
Figs 11, 12

**Type specimens.** Holotype ♂: "Tanzania, Mikumi 18–21.07.2001, K. Novák leg.". Paratype ♀: with same locality and date as holotype. The holotype is deposited in IZ-BAS and the paratype in GCCI.

**Description of holotype.** Body slender, elongate, black colored; elytra with uniform, dense, white pubescence.

Head with deep longitudinal striae on vertex and upper portion of frons; width of vertex between eyes 0.42 mm; frons protruding, rugose with sparse, white pubescence; clypeus separated from frons by sharp, transverse carina; clypeus glabrous; eyes large and convex; antennae short, extending anterior portion of pronotum; antennomeres 4–11 wider than long, rhomboidal.

Pronotum widest at anterior third; anterior margin slightly bisinuate, carinate; anterior pronotal lobe wide, weakly developed; lateral margins subparallel, slightly curved before latero-posterior angles; latero-posterior angles slightly obtuse; pronotum with two deeper lateral depressions and two shallow medial depressions; prehumeral pronotal carinae distinct, arched, extending from latero-posterior angles to posterior third of pronotum, not reaching lateral margins; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of diagonal and transverse striae; pronotum sparsely pubescent.

Scutellum with anterior margin rounded; transverse carina present.

Elytra elongate, width across humeri almost as wide as pronotal base; elytra widest at posterior third; humeral depressions deep; apices narrowly, separately arcuate, feebly serrated; surface with uniform, dense, white pubescence; discal sculpture consisting of transverse wrinkles.

Underside. Prosternal lobe slightly arcuate. Prosternal process slightly narrowed between procoxae, apical projection long and acutely pointed; prosternum and prosternal process with dense, semierect, white pubescence. Suture between ventrites 1 and 2 not visible; apex of last ventrite truncate, with long, erect setae. Metatarsus shorter than metatibia; basal metatarsomere slightly shorter than following metatarsomeres together. Aedeagus (Fig. 12).

**Description of paratype.** Female with apex of the last ventrite less rounded, more truncate, with short pubescence, dispersed over entire surface not concentrated in apical portion, without long, erect apical setae, prosternal process, with shorter pubescence.

**Size.** Length 4.00–4.55 mm (holotype 4.00 mm); width 1.00–1.20 mm (holotype 1.00 mm).

**Differential diagnosis.** *Agrilus* (*Agrilus*) *roscidellinus* Obenberger, 1935 from Tanzania resembles this species in size, black color, uniform white pubescence on elytra and prehumeral carinae not reaching the lateral margin of the pronotum. *Agrilus* (*Agrilus*) *novaki*, sp. n. differs mainly by the glabrous pronotum and frons, broader vertex, rounded head and feebly serrate elytral apex.

**Etymology.** Dedicated to honor the collector of the specimens K. Novák.

**Figure 11.** *Agrilus* (*Agrilus*) *novaki*, sp. n. (dorsal view).

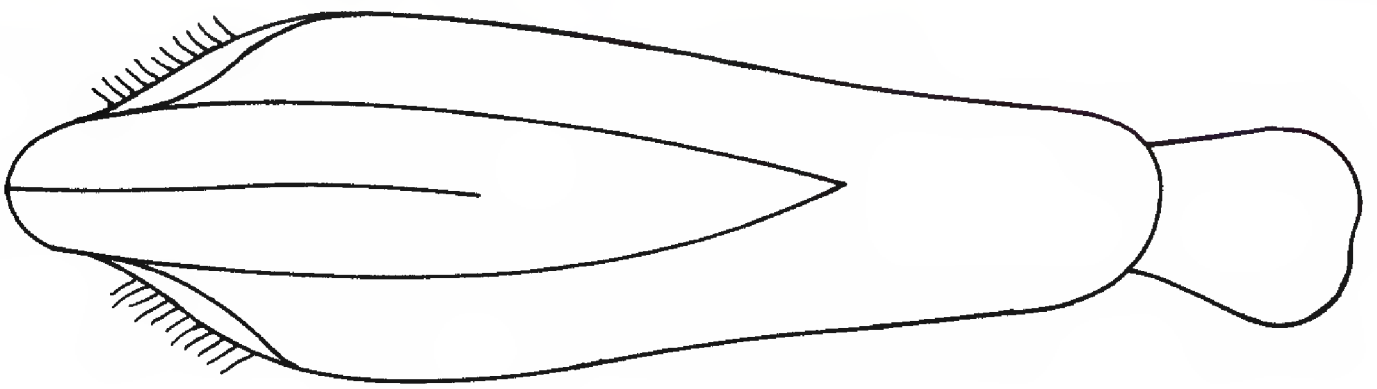

**Figure 12.** Aedeagus of *Agrilus* (*Agrilus*) *novaki*, sp. n. (dorsal view). Scale: 1 mm.

### *Agrilus* (*Agrilus*) *polinae*, sp. n.

urn:lsid:zoobank.org:act:E370B846-6EDF-4DF3-805D-5497D58792AA

Figs 13, 14

**Type specimens.** Holotype ♂: "Kenya, Tsavo West National Park (03°30′S – 38°16′E), 7.11.2005, G. Curletti & V. Sakalian leg.". Paratypes 2 exs: 1 ♀ with same locality and date as holotype; 1 ♀: "western of Voi Town (03°26′S – 38°16′E), 4.11.2005, G. Curletti & V. Sakalian leg.". The holotype is deposited in IZBAS and the paratypes in GCCI and IZBAS.

**Description of holotype.** Body elongate, dark copper dorsally, underside and frons with blackish tinge. Elytra with two longitudinal, sutural stripes of short golden pubescence.

Head with medial sulcus on vertex and upper and middle portions of frons; vertex rugose with fine punctation; width of vertex between eyes 0.52 mm; frons very strongly protruding at middle portion; upper and middle portions of frons with deep and dense punctation; lower portion of frons and genae with short, dense, golden pubescence; clypeus without pubescence, separated from frons by deep transverse

sulcus, extending between lower portions of eyes; eyes convex and very large; antennae short, extending anterior margin of pronotum; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin slightly bisinuate, carinate; anterior pronotal lobe distinct; lateral margins distinctly curved before latero-posterior angles; latero-posterior angles slightly obtuse; pronotum with four depressions (two lateral and two medial) lateral depressions deep and wide; medial depressions separated at central portion of disc; posterior depression deep, triangular; anterior depression shallow; prehumeral pronotal carinae very short, arched, extending from latero-posterior angles to posterior third of pronotum, widely separated from lateral margins; marginal and submarginal carinae not coalescent; disc rugose, discal sculpture consisting of dense punctation and diagonal and transverse striae.

Scutellum robust, anterior portion triangular; transverse carina present; hind projection short and acutely pointed.

Elytra elongate, subparallel, width across humeri slightly wider than pronotal base, widest at posterior third; humeral depressions deep and large without pubescence; apices very narrowly separately arcuate, not serrulate; elytra with two longitudinal, sutural stripes of short golden pubescence, extended from humeral depressions to apices; remaining elytral pubescence uniform and sparser; elytra not covering laterosternites, visible from dorsal view; discal elytral sculpture consisting of transverse wrinkles.

**Figure 13.** *Agrilus* (*Agrilus*) *polinae,* sp. n. (dorsal view).

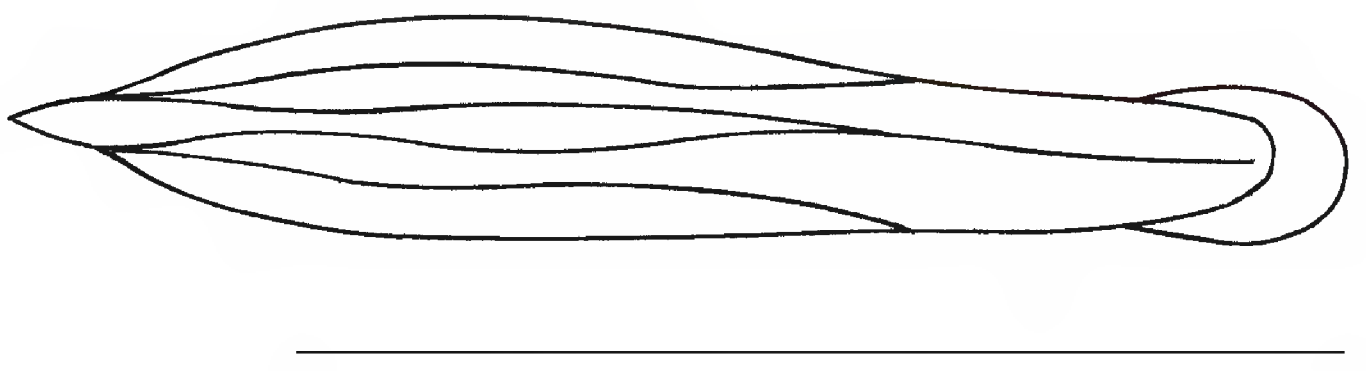

**Figure 14.** Aedeagus of *Agrilus* (*Agrilus*) *polinae,* sp. n. (dorsal view). Scale: 1 mm.

Underside. Prosternal lobe robust, emarginate medially. Prosternal process slightly narrowed between procoxae; elongate apically; prosternum and prosternal process with white, short dense pubescence. Suture between ventrites 1 and 2 not visible; ventrites with uniform, short, sparse, white pubescence; laterosternites with very dense, short, white pubescence; apex of last ventrite truncate with very slightly presented medial incision. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together. Tarsal claws bifid. Aedeagus (Fig. 14).

**Description of paratypes.** Females more robust with dark cooper frons and bright copper underside, apex of last ventrite without incision; prosternal process more densely pubescent.

**Size.** Length 4.20–4.85 mm (holotype 4.20 mm); width 1.05–1.35 mm (holotype 1.05 mm).

**Differential diagnosis.** See *Agrilus* (*Agrilus*) *njugunai*, sp. n.

**Etymology.** Dedicated to Polina Sakalian, the daughter of the second author.

### *Agrilus* (*Duttus*) *delchevi*, sp. n.

urn:lsid:zoobank.org:act:63FCB200-1EFA-4955-9435-EEC9FC4B14C1

Figs 15, 16

**Type specimens.** Holotype ♂: "Kenya, Ngong Hills, Kiserian distr. (01°26′56″S – 36°38′19″E), 1940 m, 28.04.2004, V. Sakalian leg.". The holotype is deposited in IZBAS.

**Description.** Body robust, subcylindrical, dark copper colored, with reddish tinge on frons and pronotum and blackish tinge on elytra; underside and legs bright copper; elytra with two longitudinal impressions and short lateral pubescence from posterior third to apex.

Head with medial depression on vertex and upper portion of frons; with longitudinal striae and dense punctation on sides of vertex portion of depression; width of vertex between eyes 0.75 mm; frons protruding at middle portion, with two depressions, one deeper and wider, situated in upper portion of frons, with sculpture of transverse wrinkles; another situated in lower portion of frons, with sculpture of concentric wrinkles; frons and clypeus with short, dense, red pubescence; genae with white pubescence; eyes convex and large; antennae very short, barely reaching to posterior third of eyes; antennomeres 4–11 much wider than long, triangular.

Pronotum widest at anterior third; anterior margin carinate; lateral margins distinctly curved in posterior third; latero-posterior angles acute; pronotum with two medial and two lateral depressions; posterior medial depression larger, longitudinal, long oval, separated in middle portion of pronotum from oval, smaller anterior depression; prehumeral pronotal carinae rib-formed, extending from latero-posterior angles to middle portion of pronotum, widely separated from lateral margins; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of transverse striae; lateral depressions with dense red pubescence.

Scutellum large, anterior portion triangular; transverse carina present; hind projection acutely pointed.

Elytra slightly wider across humeri than pronotal base, widest at posterior third; humeral depressions deep and wide; apices widely jointly rounded, distinctly serrulate; disk with two longitudinal impressions extending from humeral depressions to apical portion; elytra with short, sparse, lateral pubescence on posterior third; discal elytral sculpture consisting of transverse wrinkles.

Underside. Prosternal lobe robust, evenly arcuate. Prosternal process narrowed between procoxae; medial portion of prosternum and prosternal process with long, white, sparse pubescence; medial portion of meso and metasternum with short, sparse, white pubescence. Ventrites with regular, short, sparse, golden pubescence; apex of last ventrite subtruncate, with long pubescence. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together; tarsal claws bifid with long inner tooth. Aedeagus (Fig. 16).

**Size.** Length of the holotype 8.75 mm; width of the holotype 2.50 mm.

**Differential diagnosis.** This new species was found at the same locality as *Agrilus* (*Duttus*) *marietae* Curletti & Sakalian, 2007. It is similar to *A. marietae* but differs by its larger size; narrower vertex, red pubescence of frons, clypeus and pronotum, sides of pronotum sinuate before posterior angles, lack of bidentate ventral apical portion and aedeagus thinner and more elongate.

**Figure 15.** *Agrilus* (*Duttus*) *delchevi,* sp. n. (dorsal view).

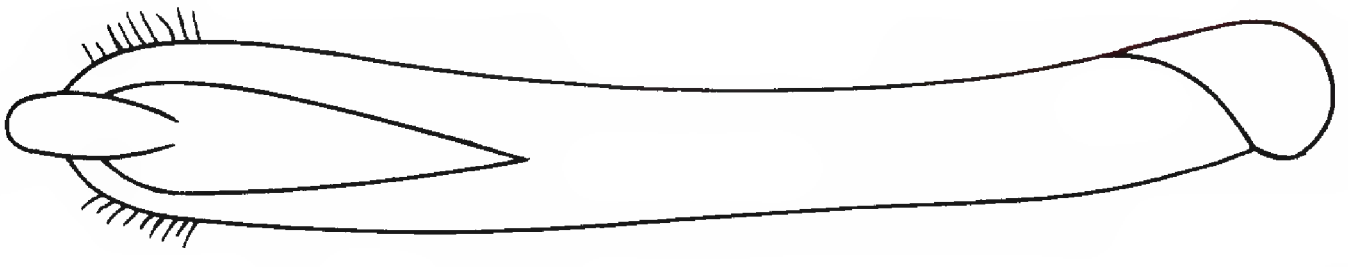

**Figure 16.** Aedeagus of *Agrilus* (*Duttus*) *delchevi,* sp. n. (dorsal view). Scale: 2 mm.

**Etymology.** The name is chosent to honor the Bulgarian arachnologist Dr. Hristo Delchev Head of Departament of "Taxonomy, Faunistic and Zoogeography" of the Institute of Zoology, Bulgarian Academy of Sciences, for his great body of work on different families of spiders of the world.

### *Agrilus* (*Paralophotus*) *gordoni*, sp. n.

urn:lsid:zoobank.org:act:ADC22987-F0A0-4325-B2C0-EF0530C5F244
Figs 17, 18

**Type specimens.** Holotype ♂: "NE Kenya, Lower Tana River (02°16′S – 40°10′E), 30 m, 25–28.10.2005, G. Curletti & V. Sakalian leg.". Paratypes 6 exs: 1 ♂ and 2 ♀ ♀: with same locality and date as holotype; 1♀: "Lower Tana River (02 13′ S - 40 10′ E), 10 m, 25–28.10.2005, G. Curletti & V. Sakalian leg."; 1 ♂: "Lower Tana River, Nyangoro, 24.04.2006, V. Sakalian leg."; 1 ♂: "Lower Tana River, 2006, V. Sakalian leg., ex larva *Acacia* sp.". The holotype is deposited in IZBAS and the paratypes in GCCI, IZBAS and NMK.

**Description of holotype.** Body short, slender, subcylindrical, dark copper, with reddish tinge on frons, disc of elytra with three spots of short white pubescence in middle, posterior third and apical portions.

Head with medial depression on vertex and upper part of frons and two carinae, bordering the eyes; width of vertex between eyes 0.25 mm; frons rounded in dorsal view; frons, clypeus and genae with very dense, red/orange pubescence; clypeus separated from frons by sharp carina; eyes convex very small; antennae very short, barely reaching upper portion of eyes; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin bisinuate; anterior pronotal lobe distinct; lateral margins curved before latero-posterior angles; latero-posterior angles rectangular; pronotum with two wider and deeper lateral and two very shallow medial depressions; prehumeral pronotal carinae broadly arcuate, extending from posterior margin to lateral margins at middle of pronotum; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of transverse striae and sparse punctation.

Scutellum robust, anterior matgin rounded; transverse carina distinct; hind projection short and acutely pointed.

Elytra subparallel, widest at posterior third, humeri distinctly wider than pronotal base; humeral depressions deep and wide, with dense white pubescence; apices widely separately arcuate, not serrulate; disc of elytra with three spots of white pubescence in middle and posterior third (arched) and apical portions (reduced to sutural area); discal elytral sculpture consisting of transverse wrinkles.

Underside. Prosternal lobe robust, arcuate. Prosternal process slightly narrowed between procoxae; prosternum, prosternal process, meso- and metasternum with short, white pubescence. Suture between ventrites 1 and 2 not visible; ventrites with uniform, sparse, golden pubescence; apex of last ventrite truncate, arcuately emargin-

**Figure 17.** *Agrilus* (*Paralophotus*) *gordoni*, sp. n. (dorsal view).

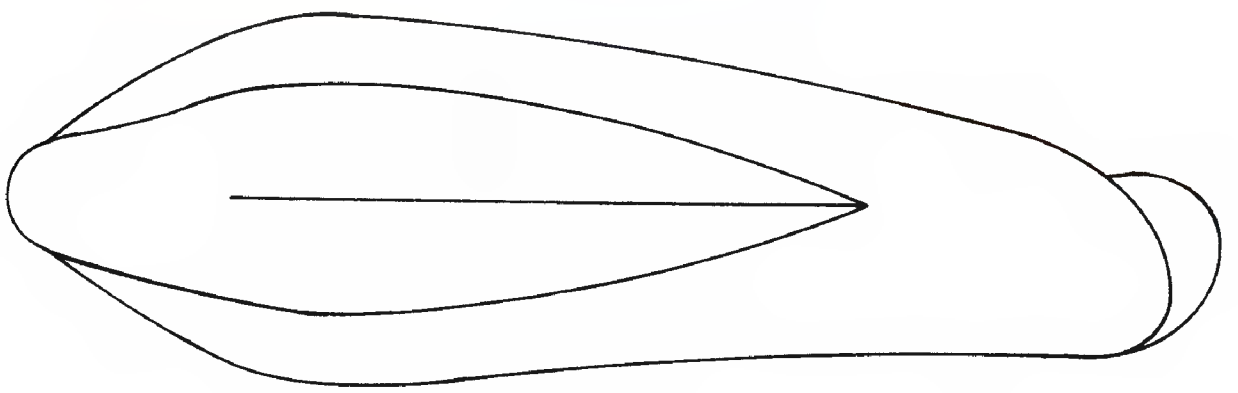

**Figure 18.** Aedeagus of *Agrilus* (*Paralophotus*) *gordoni*, sp. n. (dorsal view). Scale: 1 mm.

ate. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together. Aedeagus (Fig. 18)

**Description of paratypes.** Sexual dimorphism occurs in pubescence of frons, clypeus and genae: males have red/orange pubescence, while females have white. Paratypes also exhibit minor differences in size and density of elytral pubescent spots.

**Size.** Length 3.40–3.95 mm (holotype 3.45 mm); width 0.90–2.50 mm (holotype 0.95 mm).

**Differential diagnosis.** *Agrilus* (*Paralophotus*) *gordoni*, sp. n., *A.* (*Paralophotus*) *jiloi*, sp. n., *A.* (*Paralophotus*) *penevi*, sp. n. and *A.* (*Paralophotus*) *semerdjievi*, sp. n. are unique among the representatives of this subgenus because of their small size. These species may be separated as follows:

1. Body robust. Frons flat in dorsal view ..... ***A. semerdjievi*, sp. n.**
– Body slender . Frons rounded, convex in dorsal view ..... **2**

2. Vertex between the eyes wider: width 0.25 times the width of the anterior margin of pronotum ..... ***A. penevi*, sp. n.**
– Vertex between the eyes narrower: width less than 0.20 times the width of the anterior pronotal margin..... **3**
3. Frons and genae of male with red/orange pubescence. Prehumeral carinae reaching lateral margin of pronotum..... ***A. gordoni*, sp. n.**
– Frons and genae of male with white pubescence. Prehumeral carinae not reaching lateral margin of pronotum..... ***A. jiloi*, sp. n.**

**Etymology.** The name of the species was chosen to honor Dr. Ian Gordon from the International Center of Insects Physiology and Ecology (Nairobi, Kenya) for his considerable efforts to conserve the unique Kenyan nature.

**Remarks.** Most specimens were collected from yellow sticky traps placed on branches of *Acacia* sp.

### *Agrilus* (*Paralophotus*) *jiloi*, sp. n.

urn:lsid:zoobank.org:act:47DAA742-BF85-4845-96D4-2D721E4E881B
Figs 19, 20

**Type specimens.** Holotype ♂: "NE Kenya, Lower Tana River, Hewani Village, 20–23.04.2006, V. Sakalian leg.". Paratypes: 2 ♀♀ with same locality and date as holotype. The holotype is deposited in IZBAS and the paratypes in GCCI and IZBAS.

**Description of holotype.** Body short, slender, subcylindrical, dark copper, elytra with nearly uniform golden pubescence, denser at middle, posterior third and apical portions.

Head with medial depression on vertex and upper part of frons and two very distinct, sharp carinae, bordering the eyes; width of vertex between eyes 0.12 mm; frons rounded, hemispheric in dorsal view; frons and genae with very dense, white pubescence; clypeus separated from frons by sharp carina, without pubescence; eyes convex very small; antennae very short, barely reaching upper portion of eyes; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin bisinuate, carinate; anterior pronotal lobe distinct; lateral margins subparallel, slightly curved before latero-posterior angles; latero-posterior angles almost rectangular; pronotum with two wider lateral and two weak medial depressions; prehumeral pronotal carinae rib-formed, extending from posterior margin to middle portion of pronotum, not approaching lateral margins; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of transverse striae and sparse punctation.

Scutellum with anterior margin rounded; transverse carina distinct; hind projection short and acutely pointed.

**Figure 19.** *Agrilus* (*Paralophotus*) *jiloi*, sp. n. (dorsal view).

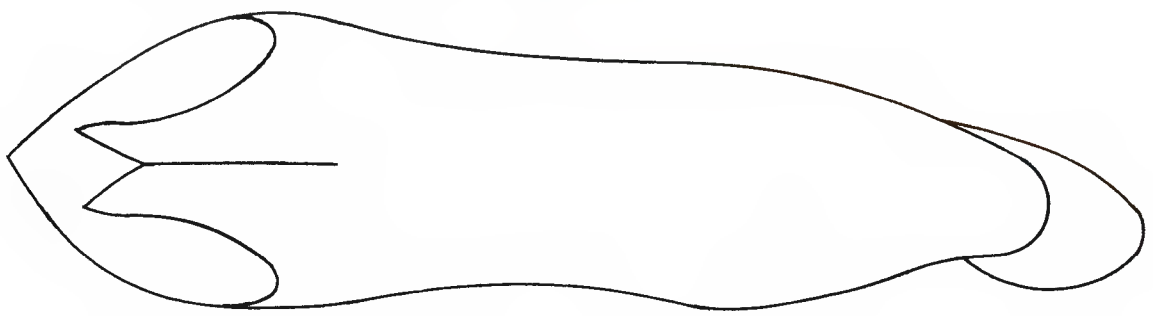

**Figure 20.** Aedeagus of *Agrilus* (*Paralophotus*) *jiloi*, sp. n. (dorsal view). Scale: 1 mm.

Elytra subparallel, widest at posterior third, width at humeri slightly wider than pronotal base; humeral depressions wide, without pubescence; apices narrowly, separately arcuate, distinctly serrulate; disc of elytra with nearly uniform golden pubescence denser at middle, posterior third and apical portions; discal elytral sculpture consisting of polygonal cells and transverse wrinkles.

Underside. Prosternal lobe robust, very distinctly arcuate. Prosternal process slightly narrowed between procoxae; prosternal process pubescent. Ventrites with uniform, sparse, golden pubescence; apex of last ventrite truncate with long pubescence. Aedeagus (Fig. 20).

**Description of paratypes.** The paratypes differ slightly in size and density of elytral pubescence.

**Size.** Length 3.25–4.00 mm (holotype 3.50 mm); width 0.95–1.20 mm (holotype 1.00 mm).

**Differential diagnosis.** See *Agrilus* (*Paralophotus*) *gordoni*, sp. n.

**Etymology.** Dedicated to Levi Jilo from Hewani Village (Lower Tana River district) for his assistance during the expeditions of the authors in this region of Kenya.

**Remarks.** Most specimens were collected from yellow sticky traps placed on branches of *Acacia* sp.

***Agrilus* (*Paralophotus*) *pavlinae*, sp. n.**
urn:lsid:zoobank.org:act:743AF137-0713-469F-A6DF-93474F736C2F
Fig. 21

**Type specimens.** Holotype ♀: "NE Lower Tana River (02°16′54″S – 40°10′35″E), 30 m, 25–26.10.2005, G. Curletti & V. Sakalian leg.". Paratype ♀: with same locality and date as holotype. The holotype is deposited in IZBAS and the paratype in GCCI.

**Description of holotype.** Body robust, dark copper colored, with two tubercles on pronotum and three spots of short golden pubescence on elytra.

Head with medial depression on vertex and upper part of frons and two carinae bordering the eyes on the vertex and upper portion of frons; width of vertex between eyes 0.42 mm; depression of vertex with sparse punctation; frons, clypeus and genae with dense golden pubescence; eyes feebly convex, small; antennae short, barely reaching upper portion of eyes; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; lateral margins curved in posterior third; latero-posterior angles acute; pronotum with two wide lateral depressions; disc with two central tubercles with concentric pubescence; prehumeral pronotal carinae very distinct, sharp, arched near posterior margin then parallel, extending to just before middle portion of pronotum, not approaching lateral margins; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of longitudinal, transverse and concentric (at tubercles) striae, pubescent.

Scutellum robust, arched in anterior portion; transverse carina present; hind projection acutely pointed.

Elytra subparallel, widest at posterior third, width across humeri wider than pronotal base; humeral depressions deep and wide, golden pubescent; apices very narrowly separately arcuate, distinctly serrulate; disk with three spots of short, golden, pubescence just before middle and posterior third and apical portion, antemedial and postmedial spots arched, apical spot adsutural; discal elytral sculpture consisting of polygonal cells.

Underside. Prosternal lobe robust, distinctly arcuate. Prosternal process with sides parallel between procoxae; apical portion very long and acutely pointed; prosternum,

**Figure 21.** *Agrilus* (*Paralophotus*) *pavlinae*, sp. n. (dorsal view).

prosternal process, and meso- and metasternum with white pubescence. Abdomen without suture between ventrites 1 and 2. Lateral portions of ventrites 3 with spots of white pubescence; apex of last ventrite truncate without medial emargination. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together; tarsal claws bifid with short inner tooth.

**Description of paratype.** The paratype differs slightly in size and density of pronotal and elytral pubescent spots.

**Size.** Length 5.75–6.50 mm (holotype 5.75 mm); width 1.70–1.95 mm (holotype 1.70 mm).

**Differential diagnosis.** Among the *Paralophotus* species which have two tubercles of concentric sculpture on the centre of the pronotum only *Agrilus* (*Paralophotus*) *pavlinae,* sp. n. has white pubescent spots on the sides of the third ventrite.

**Etymology.** Dedicated to Pavlina Pesheva, the mother of the second author.

### *Agrilus* (*Paralophotus*) *penevi*, sp. n.

urn:lsid:zoobank.org:act:10E5FA1F-3097-41B9-BBE4-723F45763E40

Figs 22, 23

**Type specimens.** Holotype ♂: "Kenya, Ngong Hills, Kiserian district (01°26′56″S – 36°38′19″E), 1940 m, 17.04.2006, V. Sakalian leg.".; Paratype ♂: with same locality and date as holotype. The holotype is deposited in IZBAS and the paratype in GCCI.

**Description of holotype.** Body short, slender, subcylindrical, dark copper, elytra with three spots of short white pubescence.

Head with one medial and two lateral sulci bordering the eyes on the vertex and upper part of frons; width of vertex between eyes 0.42 mm; vertex between sulci sparsely punctate; frons rounded, hemispheric in dorsal view; sculpture of frons consisting of transverse wrinkles; pubescence very sparse; clypeus separated from frons by sharp carina; eyes convex very small; antennae short, extending to anterior margin of pronotum; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin bisinuate, bordered with distinct carinae; anterior pronotal lobe distinct; lateral margins subparallel; latero-posterior angles slightly obtuse; pronotum with two wider and deeper lateral and two weak medial depressions; prehumeral pronotal carinae rib-formed, extending from posterior margin to middle portion of pronotum; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of transverse striae.

Scutellum relatively small; anterior margin rounded; transverse carina weak; hind projection short and acutely pointed.

Elytra subparallel, widest at posterior third, width across humeri almost as wide as pronotal base; humeral depressions weak, pubescent; apices jointly arcuate, not serrulate; disc of elytra with three spots of short, white, arched pubescence in middle, posterior third and apical portions; discal elytral sculpture consisting of polygonal cells and transverse wrinkles.

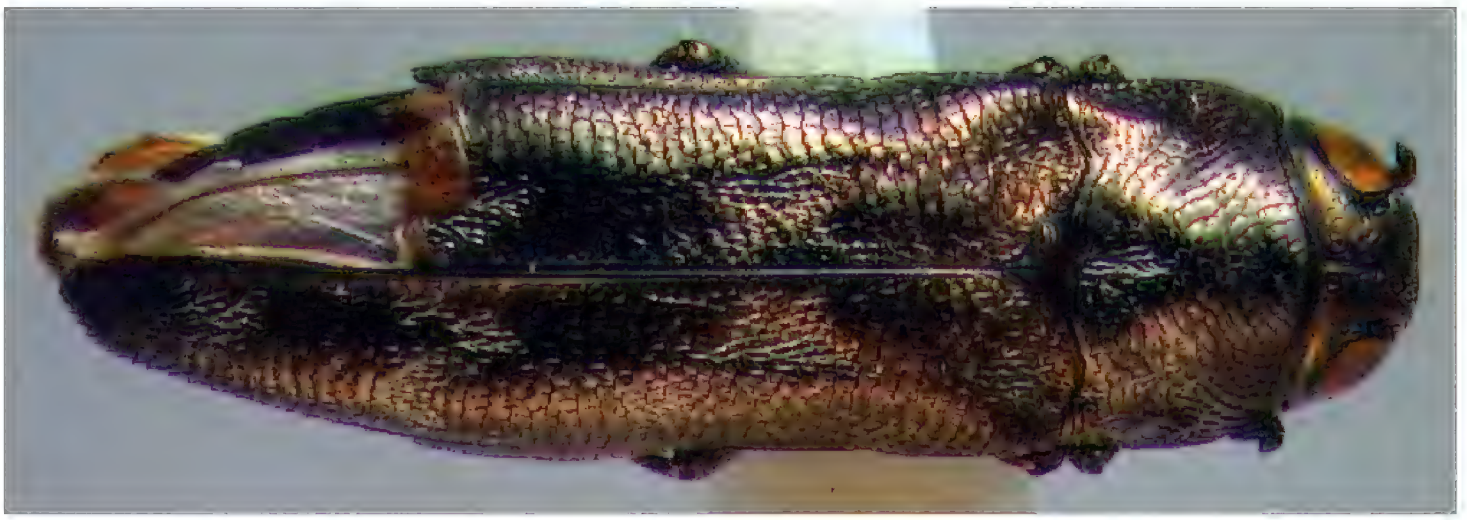

**Figure 22.** *Agrilus* (*Paralophotus*) *penevi*, sp. n. (dorsal view).

**Figure 23.** Aedeagus of *Agrilus* (*Paralophotus*) *penevi*, sp. n. (dorsal view). Scale: 1 mm.

Underside. Anterior border of prosternal lobe slightly emarginate medially. Abdomen with suture between ventrites 1 and 2 not visible. Ventrites with uniform golden pubescence; apex of last ventrite subtruncate with long pubescence. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together. Aedeagus (Fig. 23).

**Description of paratype.** The paratype differs slightly in size and density of elytral pubescent spots.

**Size.** Length 4.00–4.30 mm (holotype 4.00 mm); width 1.20–1.25 mm (holotype 1.20 mm).

**Differential diagnosis.** See *Agrilus* (*Paralophotus*) *gordoni*, sp. n.

**Etymology.** The name was chosen to honor the famous Bulgarian entomologist and publisher, founder of Pensoft Publishers, Dr. Lyubomir Penev.

### *Agrilus* (*Paralophotus*) *popovi*, sp. n.

urn:lsid:zoobank.org:act:C9DDAB89-4322-4014-A563-9E98FE36B273

Figs 24, 25

**Type specimens.** Holotype ♂: "NE Kenya, Lower Tana River (02°16′S – 40°10′E), 30 m, 25–28.10.2005, G. Curletti & V. Sakalian leg.". Paratypes 3 exs: 2 ♂♂, with same locality and date as holotype; ♀: "Lower Tana River, Hewani Village, 20–

23.04.2006, V. Sakalian leg.". The holotype is deposited in IZBAS and the paratypes in GCCI and IZBAS.

**Description of holotype.** Body robust, subcylindrical, dark copper colored, with reddish tinge on frons, with two tubercles on pronotum and three spots of short golden pubescence on elytra.

Head with medial depression on vertex and two distinct carinae bordering upper portion of eyes; width of vertex between eyes 0.45 mm; frons, clypeus and genae with dense red pubescence; eyes feebly convex, very small; antennae very short, barely reaching posterior third of eyes; antennomeres 4–11 distinctly wider than long, triangular.

Pronotum widest at anterior third; anterior margin arcuate medially; lateral margins curved in posterior third; latero-posterior angles rectangular; pronotum with two wide lateral depressions; disc with two central, finely microsculptured nonpubescent tubercles; prehumeral pronotal carinae arched basally near latero-posterior angles then parallel to lateral margins and ending near middle portion of pronotum; marginal and submarginal carinae coalescent at middle portion of pronotum; discal sculpture consisting of transverse striae, pubescent.

Scutellum large, anterior margin rounded; transverse carina present; hind projection short and acutely pointed.

Elytra subparallel, widest at posterior third, slightly wider across humeri than width of pronotal base; humeral depressions deep, wide, with golden pubescence; apices very narrowly separately arcuate, not serrulate; disk with three spots of short, golden, arched pubescence just before middle of elytra and on posterior third and apical portions; discal elytral sculpture consisting of polygonal cells.

Underside. Prosternal lobe robust, distinctly arcuate. Prosternal process with sides parallel between procoxae then widened apically, apex triangular; prosternum, prosternal process and medial part of meso- and metasternum with long, white pubescence. Lateral portions of ventrites 3–5 with spots of golden pubescence; apex of last ventrite truncate with distinct medial emargination and long pubescence. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together; tarsal claws bifid with short inner tooth. Aedeagus (Fig. 25).

**Description of paratypes.** Sexual dimorphism occurs in pubescence of frons, clypeus and genae: males have red pubescence, while females have golden. The paratypes also differ slightly in size and density of elytral pubescent spots.

**Size.** Length 5.25–5.95 mm (holotype 5.95 mm); width 1.50–1.75 mm (holotype 1.75 mm).

**Differential diagnosis.** Among the *Paralophotus* species similar in size to *Agrilus* (*Paralophotus*) *popovi*, sp. n. and with two central tubercles on the pronotum only this new species has the male frons, clypeus and genae with red pubescence.

**Etymology.** Dedicated to honor the zoology teacher of the second author Prof. Tsvetan Popov, for his considerable contributions as a university lecturer in Bulgaria and Nigeria.

**Remarks.** The holotype was collected from yellow sticky traps placed on branches of *Acacia* sp. The paratypes were collected by beating branches of *Acacia* sp.

**Figure 24.** *Agrilus* (*Paralophotus*) *popovi*, sp. n. (dorsal view).

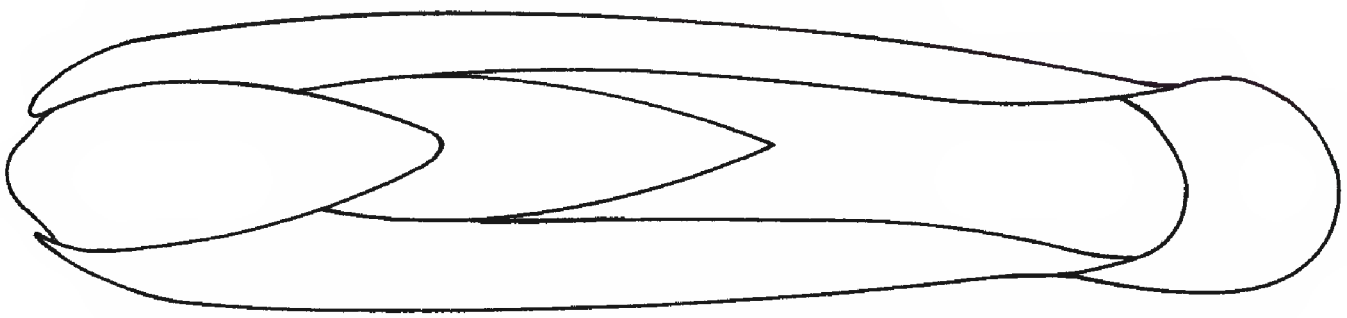

**Figure 25.** Aedeagus of *Agrilus* (*Paralophotus*) *popovi*, sp. n. (dorsal view). Scale: 1.5 mm.

### *Agrilus* (*Paralophotus*) *semerdjievi*, sp. n.

urn:lsid:zoobank.org:act:154A9368-FFA8-4795-A947-D98063E400A9
Figs 26, 27

**Type specimens.** "Holotype ♂: Kenya, S Oltepesi (01°39′S – 36°29′E), 954 m, 22.11.2005, G. Curletti & V. Sakalian leg.". Paratypes 3 exs: 2 ♂ ♂ and 1 ♀, with same locality and date as holotype. The holotype is deposited in IZBAS and the paratypes in GCCI and IZBAS.

**Description of holotype.** Body short, cylindrical, robust, dark copper, elytra with three spots of short white pubescence.

Head with medial depression on vertex and upper part of frons and two carinae bordering the eyes on vertex and upper portion of frons; width of vertex between eyes 0.37 mm; depression of vertex with dense punctation; frons flat in dorsal view; frons, clypeus and genae with dense white pubescence; eyes convex, slightly protruding, small; antennae short, barely reaching upper portion of eyes; antennomeres 4–11 wider than long, triangular.

Pronotum widest at anterior third; anterior margin arcuate medially, bordering with distinct carinae; lateral margins curved in posterior third; latero-posterior angles slightly obtuse; pronotum with two lateral and one anterior-medial weak depressions; prehumeral pronotal carinae rib-formed, extending from posterior margin to before middle of pronotum; marginal and submarginal carinae coalescent at posterior third of pronotum; discal sculpture consisting of transverse striae; pronotal depressions pubescent.

Scutellum large, prominent; anterior margin rounded; transverse carina present; hind projection short and acutely pointed.

Elytra subparallel, widest at posterior third, width across humeri wider than pronotal base; humeral depressions deep and wide, pubescent; apices jointly arcuate, serrulate; elytra with four spots of short, white, arched pubescence (one humeral, two discal and one apical); discal elytral sculpture consisting of polygonal cells.

Underside. Prosternal lobe slightly arcuate. Prosternal process with sides parallel between procoxae, then narrowed apically; prosternum, prosternal process and meso- and metasternum with long, white pubescence. Abdomen with suture between ventrites 1 and 2 not visible; ventrites 3–5 with long, white pubescence, denser in lat-

**Figure 26.** *Agrilus* (*Paralophotus*) *semerdjievi*, sp. n. (dorsal view).

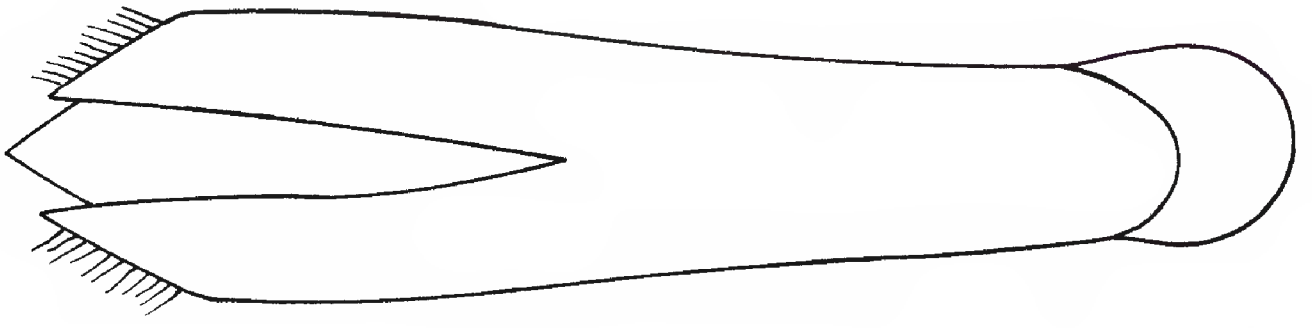

**Figure 27.** Aedeagus of *Agrilus* (*Paralophotus*) *semerdjievi*, sp. n. (dorsal view). Scale: 1 mm.

eral portions; apex of last ventrite truncate, without medial emargination, pubescent. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together. Aedeagus (Fig. 27).

**Description of paratypes.** The paratypes differ slightly in size and density of elytral pubescent spots.

**Size.** Length 4.40–4.80 mm (holotype 4.40 mm); width 1.40–1.55 mm (holotype 1.40 mm).

**Differential diagnosis.** See *Agrilus* (*Paralophotus*) *gordoni*, sp. n.

**Etymology.** The name was chosen to honor the very good friend of the second author, Ing. Hristo Semerdjiev, CEO and Chairman of the Board of the Directors of Technecon Group who partly sponsored the expeditions of the authors in Kenya.

**Remarks.** Collected from yellow sticky traps placed on branches of *Acacia* sp.

### *Agrilus* (*Paralophotus*) *tsavoensis*, sp. n.

urn:lsid:zoobank.org:act:143D96AF-D5A7-4EF8-AF1B-507EDA70B723

Fig. 28

**Type specimens.** Holotype ♀: "Kenya, Tsavo West National Park (03°30′S – 38°16′E), 4.11.2005, G. Curletti & V. Sakalian leg. ". The holotype is deposited in IZBAS.

**Description.** Body robust, subcylindrical, dark copper dorsally, underside bright copper, elytra with three spots of short golden pubescence.

Head with medial depression on vertex and upper portion of frons; depression with dense punctation; width of vertex between eyes 0.37 mm; frons flattened; frons, clypeus and genae with dense white pubescence; eyes narrow, long and flat, situated frontally; antennae very short, barely reaching posterior third of eyes; antennomeres 4–11 markedly wider than long, triangular.

Pronotum widest at anterior third; anterior margin straight, carinate; lateral margins strongly curved in posterior third; latero-posterior angles acute; pronotum with two wide and deep lateral depressions; disc with transverse central impression; prehumeral pronotal carinae straight, extending from posterior margin to posterior third of pronotum; marginal and submarginal carinae subparallel, not coalescent; discal sculpture consisting of transverse striae, pubescent.

Scutellum large and robust, anterior margin rounded; transverse carina present; hind projection short and acutely pointed.

Elytra distinctly widest at posterior third, width across humeri wider than pronotal base; humeral depressions deep, without pubescence; apices distinctly separately, arcuately acuminate, not serrulate; elytral disk with three spots of short, golden, pubescence in middle (not very distinct), posterior third and apical portions near suture; medial and postmedial spots arched; discal elytral sculpture consisting of polygonal cells.

Underside. Prosternal lobe robust, evenly arcuate. Prosternal process protruding in basal portion, sides parallel between procoxae, then narrowed apically; prosternum, prosternal process, meso- and metasternum with dense, white pubescence. Ventrites

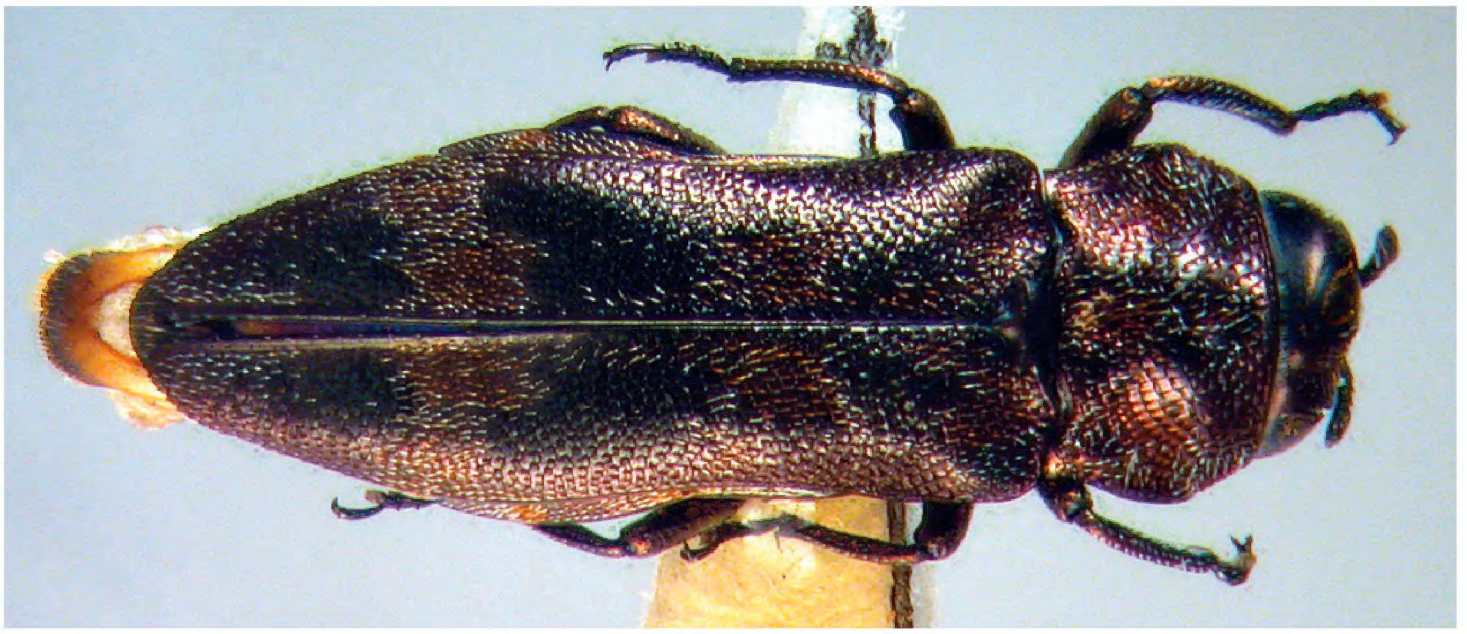

**Figure 28.** *Agrilus* (*Paralophotus*) *tsavoensis*, sp. n. (dorsal view).

with uniform dense white pubescence; apex of last ventrite distinctly emarginate, with long setae. Metatarsus shorter than metatibia; basal metatarsomere shorter than following metatarsomeres together; tarsal claws bifid with short inner tooth.

**Size.** Length of the holotype 5.50 mm; width of the holotype 1.80 mm.

**Differential diagnosis.** There are no other *Paralaphotus* spp. known from Kenya with the eyes situated frontally as in this species. Curletti and Dutto (1999) described two species from Tanzania, *Agrilus* (*Paralaphotus*) *invectus* and *A.* (*Paralaphotus*) *kenge* with such character, but both of these species have mucronate elytral apices. *Agrilus* (*Paralaphotus*) *myops* Curletti,1998 from Somalia has strongly denticulate elytral apices while those of *A. tsavoensis*, sp. n. is smooth.

**Etymology.** Named for the type locality: Tsavo West National Park.

### *Agrilus* (*Robertius*) *mungaii*, sp. n.

urn:lsid:zoobank.org:act:0FEA0350-5791-46A8-9639-5B77136C21AC
Figs 29, 30

**Type specimens.** Holotype ♂: "Uganda, Bwamba Forest, Fort Portal, 2100' (around 640 m), 04. 1951, E. Pinhoy leg.". The holotype is deposited in NMK.

**Description.** Body elongate, flattened, dark copper, dorsum with blackish tinge, frons with greenish lustre; elytra with two spots of white pubescence.

Head. Vertex with wide medial sulcus sparsely punctate; width of vertex between eyes 0.90 mm; frons protruding, rhomboidal, wider in upper portion, densely granulate; clypeus with dense yellow pubescence, separated from frons by sharp carina; eyes large, protruding; antennae extending to anterior third of pronotum; antennomeres 4–10 very much wider than long, triangular; last antennomere rhomboidal.

Pronotum. Subparallel, slightly wider in anterior third; with two lateral and two medial depressions; anterior pronotal lobe only weakly developed; lateral margins slightly curved before acute lateroposterior angles; weak longitudinal basal depression

in posterior portion of disc; anterior discal depression weak subtriangular; lateral depressions large, oblique; prehumeral pronotal carinae rib-formed, extending from latero-posterior angles to just before lateral margins at middle of pronotum; marginal and submarginal carinae subparallel, separate; discal sculpture consisting of weak transverse striae, which become denser and more oblique in lateral portions of pronotum.

Scutellum large, robust; transverse carina present; hind projection very short and acutely pointed.

Elytra. Distinctly elongate; only slightly wider across humeri than posterior pronotal margin; humeral depressions distinct, deep and large; elytra parallel to posterior third, widest at posterior third and subparallel to apical portion; apices very widely, separately arcuate, strongly serrulate; disc with short, sparse, fine pubescence and two spots of condensed white pubescence at the middle and posterior portions; discal sculpture consisting of fine, dense granulations and transverse wrinkles.

Underside. Prosternal lobe deeply, arcuately emarginate. Prosternal process wide, sides parallel between coxae, carinate laterally. Ventrites with golden short pubescence more condensed on lateral portions of venrites and laterosternites; apex of last ventrite rounded apically without medial emargination. Metatarsus shorter than metatibia; basal metatarsomere longer than following metatarsomeres together; tarsal claws bifid with acutely pointed teeth. Aedeagus (Fig. 30).

**Size.** Length of the holotype 7.12 mm; width of the holotype 1.65 mm.

**Figure 29.** *Agrilus* (*Robertius*) *mungaii,* sp. n. (dorsal view).

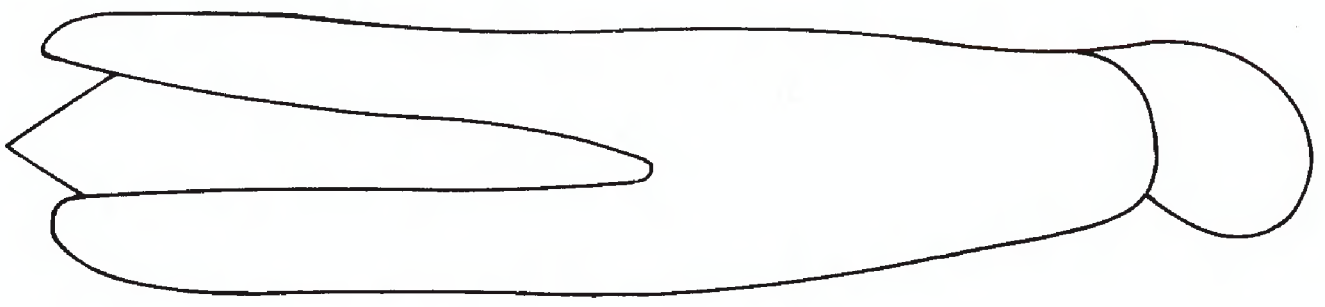

**Figure 30.** Aedeagus of *Agrilus* (*Robertius*) *mungaii,* sp. n. (dorsal view). Scale: 1.5 mm.

**Differential diagnosis.** This new species is closely related to *Agrilus delenitor* Obenberger, 1935, described from Cameroon. It differs by its green color (*A. delenitor* is bronze), flat vertex, more superficial sculpture of the pronotum, and sterna with denser lateral pubescence (uniform in *A. delenitor*). The aedeagus of *A. mungaii*, sp. n. is broader with a broader penis (Fig. 30).

**Etymology.** Dedicated to the curator of insects in the National Museum of Kenya, Mr. Michael Mungai, for his kindness to let us study the buprestid specimens in his care.

## Acknowledgements

Our sincerely thanks are due to Ted C. MacRae (Monsanto Company, Chesterfield, Missouri, USA) for comments and linguistic revision of the text.

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